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ABSTRACT

Adult education opportunities can be increased through cable television technology, which provides home-based instruction as an alternative to the strictures of the classroom or learning center. The 18-month Salem project used television for primary instruction together with the services of paraprofessional tutors as a personal contact for feedback between the adult students and the central staff of teachers and media producers. The initial six months were spent in research on adult basic education, surveys of community needs, and the construction of the TV studio. The plans for television production called for a curriculum in math, reading, and consumer education. The evaluation of the Salem project consisted of a preliminary pilot test and a more rigorous field test; posttests showed an increase in the grade level of the participants. The Salem project included some valuable lessons for anyone contemplating small scale TV production and can also be used as guidelines for a replication of the Salem model. (EC)

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THE SALEM CABLE TELEVISION PROJECT

A demonstration of the use of cable television and paraprofessional tutors as an alternative to traditional ABE classroom instruction.

FINAL REPORT

Prepared by:

PETER WIESNER, Project Director

Submitted: July 31, 1975

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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The students in the SALEM Project were extremely cooperative participants in the cable experiment, which involved tests and data collection; it is they who ultimately determined the extent to which home-based instruction can be successful.

Peter Wiesner,
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Chapter One: Introduction

THE PROBLEM

Literacy is a basic requirement for achieving economic well-being in the United States. Adults lacking in basic education are deprived of information which leads to job opportunities, health services, housing, and cultural participation. The social costs of illiteracy are great, both from an economic and humanistic point of view, and are indicated by lack of productivity and by stigmatization.

The 1971 survey of educational attainment by the Bureau of the Census revealed that a total of 5.8 million or 3.9 percent of the persons age 14 and older in the United States were functionally illiterate, having completed less than five years of elementary schooling.[1] Only a small proportion of undereducated adults are being reached by Adult Basic Education programs, according to the report of the National Commission on Civil Disorders.[2] For example, about 10 percent of New Jersey's 7.3 million residents need basic skills education. Only 17,500 were being reached in 1974 by government ABE programs; that is, approximately 2 percent of those in need.[3] In Salem, a town of 7,648 people, there are 309 persons over 25 years old with less than five years of schooling, and a total of 1,170 with less than eight years of schooling.[4] According to Salem School officials, relatively few of these undereducated adults were attending local Adult Basic Education classes.

In an effort to meet the need for basic skills training for adults, the United States Office of Education funded various demonstration and experimental projects under Section 309-b of the Adult Education Act. The SALEM Cable TV Project was one such project. It was to demonstrate the use of cable television in expanding and improving the quality of basic skills training for adults.

PURPOSE OF THE PROJECT

A major goal of the SALEM Cable TV Project was to increase the enrollment in Adult Basic Education through cable television technology. Cable television was to provide a less costly and more flexible alternative to broadcast television in providing home-based instruction. SALEM would demonstrate the use of television and tutoring as an alternative form of Adult Education. It was thought that if the project succeeded in meeting its goals in Salem, it could be replicated in other communities interested in broadening their adult education programs.

The initial proposal for SALEM conceived of cable technology as a means of freeing Adult Basic Education from the strictures of the classroom or learning center. Aside from making education convenient, SALEM was to make it relevant to the needs of adults who were unable or reluctant to attend evening classes. It was thought that the novelty of television, particularly in the form of an adult "Sesame Street," would greatly motivate adults.

The SALEM Cable TV Project included a support system of paraprofessional tutors who provided reinforcement to the televised lessons in weekly visits to the homes of adult learners. More than 100 instructional programs, focusing on basic reading and math skills, were to be produced for functionally illiterate adults. The design of the Project included the use of feedback channeled through the tutors to assure that the content and pacing of the video tapes were appropriate for adult learners.

1. Shaffer, John M., *The NALA Study*, New Readers Press, Syracuse, 1973
2. Dodson, Paul Daniel, *Report of the National Advisory Commission on Civil Disorders*, Bantam Books, New York, 1968
3. New Jersey Department of Education
4. *The 1970 Survey of the United States Bureau of the Census*

A BACKGROUND STUDY OF PREVIOUS RESEARCH AND EXPERIMENTATION

THE UNESCO WORLD SURVEY

On the assumption that literacy is a requirement for economic well-being and social advancement, many governments have sponsored campaigns to eradicate the illiteracy of an estimated 800,000,000 people worldwide. In addition to radio, television has been used experimentally for literacy training in at least 21 countries, including Colombia, India, Algeria, and the United States.[1] According to a UNESCO report on a worldwide survey of television in literacy:

> Many of the replies stressed the need for research. As to the kinds of research that are most required, we would suggest that inquiry into whether broadcasting eradicates illiteracy is no longer necessary, but that attention should rather centre on how best it can help to do so. There is a need particularly for research of the "action" type in which results are fed back continuously into planning and research.[2]

THE ORIENTATION OF SALEM

The SALEM Cable TV Project placed a great stress on the practical aspects of managing a television literacy program. Television was used for primary instruction. Paraprofessional tutors were employed to give personal attention to adult learners and to provide feedback to the central staff of teachers and media producers. Television production was geared to the needs of local adult learners which became evident through available demographic data and local needs assessment surveys. On-going feedback from the tutors, who lived in the community of the adult students, was an essential ingredient in shaping the programs and managing the cable/tutor delivery system.

The contributions and shortcomings of the SALEM Cable TV Project are best understood when seen in the light of other projects using television to reach undereducated adults.

COMMON EXPERIENCE

Most previous attempts to use television Adult Basic Education and literacy training called for similar planning steps, beginning with a needs assessment study of potential adult viewers. Among the problems faced were the logistics, including cost, schedules of sending and receiving broadcasts, producing adequate programming, and organizing a trained supportive staff to expedite learning and to sustain the viewership.

The lessons learned from the worldwide use of television are reiterated in the UNESCO study mentioned above:

> The best and most successful methods and materials mentioned include: group listening and viewing and discussion; broadcasts well coordinated with the national literacy campaign as a whole; good and careful training of teaching personnel; rationally organized feedback, relating materials to the everyday life of the students; practical participation; and (in the case of television) the use of dramatic sketches. The need to bring into consultation and secure the cooperation of other national bodies was also among the points stressed in the replies.
>
> Pitfalls to avoid include: the use of broadcasts in isolation; starting projects without the proper preliminary research or planning; the use of unsuitable personnel, especially untrained or inadequately trained volunteers; creating antagonisms between educators and broadcasters; using overtheoretical materials or those only remotely relevant to the students' interests; too many organizations sharing responsibility for projects.
>
> There was almost total unanimity that broadcasting (radio or television or both) is nowadays essential to literacy campaigns, especially in developing countries.
>
> There was also no doubt in most minds that, as far as literacy is concerned, radio and television can both help the teaching process and inculcate the main teaching message.[3]

SHORTCOMINGS OF CURRENT RESEARCH

Aside from the practical advice given by practitioners in the UNESCO survey cited previously, there is a considerable body of research concerning the educational merits of mediated

1. Maddison, John, *Radio and Television in Literacy: A Survey of the Use of the Broadcasting Media in Combating Illiteracy Among Adults*, Reports and Papers on Mass Communications, UNESCO, 1971
2. *Ibid.*, p. 36
3. *Ibid.*, p. 31

instruction. In her study of this research, Peggie Campeau observed, "Major reviews of literally hundreds of comparative studies concluded that, in general, no significant differences were found when instructional television was compared with face-to-face instruction."[1] Much of the research has focused on the comparative merits of mediated and face-to-face instruction. One might say that this issue has been worked to death. Less is known of how the practitioner should produce and use mediated instruction. According to Campeau:

> What is most impressive about the formidable body of literature surveyed for this review is that it shows that instructional media are being used extensively, under many diverse conditions, and that enormous amounts of money are being spent for the installation of very expensive equipment. All indications are that decisions as to which audiovisual devices to purchase, install, and use have been based on administrative and organization requirements and on considerations of cost, availability, and user preference, *not on evidence of instructional effectiveness* — and no wonder. To date, media research in postschool education has not provided decision makers with practical, valid, dependable guidelines for making these choices on the basis of instructional effectiveness.[2]

THE RATIONALE FOR SALEM

The initial planning of the SALEM Project took place under the circumstances described by Campeau. The lack of research, and the lack of lead time for research, is a major reason why the SALEM Project concentrated on the practical aspects of managing a cable system to instruct educationally disadvantaged adults.[3]

In planning SALEM, the staff reviewed numerous reports and studies pertaining to the problems of undereducated adults and various attempts in the United States to serve them.

HOME-BASED INSTRUCTION

A number of the projects funded by the U.S. Office of Education under Section 309-b were related to the SALEM Project. For example, the Appalachian Adult Education Center trained ABE graduates as tutors to provide basic skills education to adults in their homes. The Center's rationale for home-based instruction was based on the immobility of the poor:

> There is increasing evidence that, within or without Appalachia, adult basic education is being offered to differentiated poverty-level groups with different needs requiring ABE delivery systems. What works for one group doesn't necessarily work for another. The Appalachian Adult Education Center has adopted the terminology of the *stationary poor* and the *upwardly mobile poor* in considering undereducated Appalachians. Although the two groups may exist in the same family, they require uniquely different delivery systems. As a generalization, services must go to the stationary poor, while the upwardly mobile poor (the motivated) will go to the services. Evidence from the fields of health care delivery, early childhood education, services to the aged poor, many other social services, and the successes of the Cooperative Extension, all contribute to this generalization.[4]

Home-based instruction is not new, of course. It is innovative only inasmuch as current practices revolve around the classroom or learning center. Increasingly, adult educators are coming to recognize that these conventional delivery systems do not reach most of the stationary poor. On-site and home-based instruction is not an issue in developing countries where teachers, medical personnel, missionaries, and government extension agents are a common sight, working with tribesmen and villagers in remote areas. In urban and industrialized areas, however, this approach tends to be regarded as innovative.

There are several organizations and numerous private groups in the United States which are reaching illiterate adults through volunteer tutors. The major ones are the Literacy Volunteers of America (LVA) and the National Affiliation for Literacy Advance (NALA). The latter organization promotes literacy programs both abroad and in the United States. Its membership uses materials based on the work of Dr. Frank C. Laubach. Laubach's concept of *each one teach one* began in 1931 in the Philippines and later spread to India, Africa, and 105 individual countries.[5] Not until the mid-50's did volunteer organizations emerge in the U.S., primarily to teach illiterate adults.[6]

---

1. Campeau, Peggie L., "Selective Review of the Results of Research on the Use of Audiovisual Media to Teach Adults," *AV Communications Review*, vol. 22, No. 1, Spring, 1974
2. *Ibid.*
3. To appreciate the task of planning an effective television series, see Land, Herman W., *The Children's Television Workshop: How and Why It Works*, Nassau Board of Cooperative Educational Services, Jericho, New York, 1972
4. Appalachian Adult Educational Center, 1973 *Interim Report*. Morehead State University, Kentucky
5. Laubach, Frank C., *Forty Years With The Silent Billion*, Fleming H. Revell Co., Old Tappan, N.J., 1970
6. Stauffer, *Op. Cit.* This study gives a profile of NALA tutors and the measurement of change in reading comprehension of those tutored.

THE APL STUDY

The Adult Performance Level Study (APL) is a most ambitious effort to identify the learning needs of undereducated adults through research, including a survey of professionals in adult education and interviews with adult learners. The APL Study attempted to define "functional" literacy in terms of observable behavior, regarding literacy as specific academic skills and knowledge areas, important for survival in modern society. This study found that many undereducated adults have difficulties translating academic training into effective action when confronted with real life situations, such as reading a TV schedule or determining the correct cost for items on a mail order form.

> All these examples suggest that a way must be found to identify literacy skills which are crucial to survival and success in adult life, and to assist the adult in employing these skills effectively outside the classroom. Perhaps we should even begin to question the utility of the "classroom" concept of basic education for adults, and devise alternative methods of instruction which derive from the problems with which the undereducated adult constantly struggles. The APL project staff hopes that their work can assist in this endeavor.[1]

The notion of "functional" literacy can be a Pandora's box. If an educator is interested merely in skills which can be measured indirectly in behavioral terms, relatively few problems are encountered. The APL study, however, yearns for something more, something which Paolo Freire suggested in his writings: the task of awakening consciousness via literacy. Many adult educators speak of the difficulties of motivating adult learners without ever mentioning the roots of the alienation which many undereducated adults feel towards education. Freire's writings stressed humanism and the democratization of culture. He identified the political and economic roots of alienation and advocated that literacy training take into account the conditions which undereducated adults, who for the most part are poor, must confront each day. Freire sought the breakdown of the class barrier which separates the educated and the functionally illiterate. Many educators agree with this notion in principle, using the word "relevant" without fully acknowledging the social and political problems which must be overcome before the "hard-to-reach" adults can participate full-heartedly in literacy, or for that matter, in society.[2]

1. Northcutt, Norvell W. et al., *The Adult Performance Level Study*, Division of Extension, The University of Texas at Austin, 1973
2. Freire, Paolo, *Education for Critical Consciousness*, The Seabury Press, New York, 1973

PREVIOUS EXPERIMENTATION WITH TELEVISION IN LITERACY TRAINING IN THE U.S.

In 1960 there was very little being done in the United States in literacy training for adults and still less in the use of mass media in such efforts. In the last 15 years, there have been numerous television projects employing mass media to teach basic skills, but none have been developed and field tested with instructional support to the extent that they are fully replicable. The use of television in adult literacy training is still in the experimental stage.

Operation Alphabet has been the most ambitious effort to use the mass media to reach illiterate adults in more than 100 United States cities through daily morning broadcasts.[3]

Operation Alphabet was aimed at a largely anonymous audience and for that reason, its effectiveness could only be surmised on the basis of ratings and sporadic feedback from viewers.

THE FLORENCE, ALABAMA PROJECT

The Alabama Project is a milestone in the use of television in literacy training. It was an experiment conducted in 1960 by the Florence State College and remains the most significant attempt in the United States to measure the effectiveness of televised adult literacy training compared to direct teaching in class. This study involved the field testing of kinescopes (produced by WKNO, Memphis, Tennessee) based on the literacy materials produced by Dr. Frank C. Laubach.[4] The program originally involved 600 students who were functionally illiterate. Two hundred fifty students completed the course of study. Lessons were prepared and telecast. Classes with direct teaching were also organized. Evaluations were made of literacy training by questionnaires. Achievement was measured by staff-administered tests, and staff observations. The staff expressed the need for materials of adult interest to aid in the development of literacy training programs. The study concluded:

> The final test indicated that television and person-to-person groups scored

3. According to Maddison, p. 10, in addition to "Operation Alphabet," which began in Philadelphia in 1961, there were other TV literacy series: *Learning to Read* in Baltimore, P.S. 44 in St. Louis, and *Learn for Living* in Yakima, Washington
4. Peerson, Nell, *An Experiment, with Evaluation, in the Eradication of Adult Illiteracy by Use of Television Instruction over a State Educational Television Network Supplemented by Supervised Viewing*, Florence State College, Alabama, 1961.

equally well on world knowledge and word discrimination. However, the televised groups did poorer work on the test of connected reading. From this experiment, it appears that television, instruction, with suitable supplementary material, can very adequately meet the need for a crash program on illiteracy.[1]

The Peerson Study indicated the need for additional research to solve the problems of identifying and enrolling students and of finding the best ways of motivating adult non-readers. Although Peerson did indicate favorable response by viewers to the kinescopes, citing a few problems in pacing the lessons, her study did not attempt to show if the television medium encouraged enrollment and increased the movtivation of adult learners. The study did not indicate how the Laubach picture/symbol association method was adapted to television, or how the TV lessons were presented by the volunteer tutor who was described as the key person in this literacy project. Inasmuch as the kinescopes in this experiment were used in learning centers, in which the audience was defined, the need to focus on the motivational aspects of television was not a priority. It is apparent that the demand for production quality is a function of the viewer's needs and expectations, which vary according to the circumstances in which television programs are presented.

Neither the WKNO kinescopes nor *Operation Alphabet* sought to exploit the potential of the television medium beyond its capability of clearly reproducing the teacher's performance as an effective lecturer. In recent years, increasing attention has been paid to the visual aspects of television, including the use of real situations and skits to illustrate and dramatize a lesson. A number of such programs have been produced for undereducated adults, but none specifically geared to teach basic literacy.

FORERUNNERS OF SALEM

A notable use of the television medium to reach undereducated adults is the *Rural Family Development Series* which employed a variety format to focus on consumer topics and life-coping skills. Unlike previous attempts to use the mass media to reach undereducated adults at their homes, the *RFD Series* had a support system which included materials and home visitations, an approach which was to be used in SALEM Cable TV Project.

Also a forerunner of the SALEM Cable TV Project is Project Reach, conducted under the auspices of the University of Notre Dame, Indiana. The purpose of this project was to teach adults basic skills and to motivate participants via closed circuit television.[2] Later mention of this project indicates the use of cable to reach a wider adult audience in community education, with great stress placed on viewer and community participation in determining the TV programming.[3]

Other efforts to produce programs for undereducated adults should be noted, if only to indicate the scope in which television has been used to teach subjects other than basic literacy for adults. The *Rural Family Development Series* gave birth to the *360° Series* which attempted to reach a low income urban audience. Public Television has produced several excellent series. The *Consumer Survival Kit* (Maryland Center for Public Broadcasting) made some efforts to appeal to undereducated adults although the content was intended for a wider audience of consumers. *Feeling Good* (Children's Television Workshop) was the first attempt to translate some of the methodolgy of *Sesame Street* into adult programming.

The *Wake Up* series (WCAU-TV, Philadelphia) was specifically aimed at undereducated adults and used a low-keyed and often humorous approach to life-coping skills topics. This program enjoyed high ratings for an early morning show.

There are two high school equivalency series. *Your Future Is Now* has been broadcast in various states and was correlated with workbooks. The *Kentucky Educational Television Series* (KET Series) is a more recent attempt to create a high school completion course via television. The *KET Series* represents an effort to bend educational materials to the entertainment requirements of the television medium.

The development and initial field testing of the *KET Series* was conducted with the cooperation at the Appalachian Adult Education Center in Morehead, Kentucky. A variety of delivery systems, including cable TV, are being used to field test the KET Tapes nationally. The results of the KET field testing should be of interest to those planning the use of media to teach functional illiterates; however, the problems of functional illiterates are by no means identical to adults seeking a high school completion certificate. Hence, any parallels must be drawn with caution.

Mention should be made of *Sesame Street* and *Electric Company* (produced by the Children's Television Workshop). Both have enjoyed a wide viewership among adults. The extent to which illiterate adults are watching and learning from these snows is not known. Never-

1. *Ibid.*, p. 54

2. Maddison, *op. cit.*, p. 10
3. Orndorff, Joseph E., "Project Reach — Community through Cable," *Educational and Industrial Television*, April, 1974.

theless, because of their success, these shows are touted as models for future basic skills television programming for adults.

THE LACK OF VIDEO IN ABE

Unfortunately, an adult literacy series with the impact of a *Sesame Street* is not available at this time. It is common to underestimate the problem of adapting a curriculum designed to teach reading with television. For example, the teaching of connected reading via TV presents technical difficulities, for it is often difficult to show sentences with more than seven words per line clearly on the TV screen. A pedagogical problem exists in the teaching of connected reading without direct feedback between student and instructor.[1]

The need for suitable programming is only one problem. Numerous financial and logistical constraints have affected the use of broadcasts in literacy training, such as competition from commercial broadcasts, the inability to secure desirable broadcast times, and the costs of producing, transmitting and receiving televised programming. Technical problems in transmission and reception have also been reported by some Projects.[2]

1. According to Peerson *Op. cit.*, p. 53, television proved to be less successful in teaching connected reading than face-to-face instruction.
2. Shramn, Wilbur, *New Educational Media In Action: Case Studies for Planners* (I, II, III), Unesco, 1969.

At the graduation dinner, a group of students and a tutor (bottom, second from right).

Chapter Two: Organization Of The Salem Project

INITIAL OBJECTIVES AND GOALS

The official starting date of the SALEM Project was to have been July 1, 1973, but due to delays in the disbursement of funds, the project was postponed and did not actually start until January 1, 1974. The Salem City Schools could not legally begin the project without the disbursements, according to school officials. By that time, the more than two-year old proposal was dated and much of the planning and contact work had to be started again.

SALEM was funded for 18 months by a $160,000 grant from the United States Office of Education. The project was designed to provide an alternative form of adult education through the medium of cable television and with the assistance of a support system of paraprofessional aides.

To meet this goal, the following objectives were established by the SALEM Staff:

1. To design and equip a television facility for preparation and cablecasting of instructional tapes.
2. To develop and cablecast instruction in skills on a daily basis.
3. To construct home instruction materials which reinforce televised lessons.
4. To build and train a support system of paraprofessional aides from the community for tutoring, record keeping and follow-up on all students.

The goal stated in the original proposal for this project was to increase the number of adults earning high school equivalency diplomas through cable TV. The proposal also stated that the project should try to reach students with zero to fifth grade levels of achievement. The project staff found a high degree of illiteracy among adults in the city's housing project and changed the focus of the curriculum from GED to ABE, with emphasis on basic literacy training.

STAFFING

At the beginning of the project in January, 1974, a director, assistant director, and secretary were hired. Six months later, two teachers, a TV technician, and two student crew members were added to the staff. Shortly after, paraprofessional tutors began to work for the project in preparation for the pilot cable TV semester in September of that year.

Inasmuch as SALEM was thought to be primarily a media project, the Salem City Schools decided to employ a director and assistant director with backgrounds in communications and media, believing that the SALEM Cable TV Project required persons with skills in television production. The director had previously worked for a government funded migrant farm worker program, a component of which provided basic skills training. The two teachers had backgrounds in adult education, one in math and the other in remedial reading.

Discussion of a production problem.

The paraprofessional aides had at least a high school education and were members of the community from which adult students were to be enrolled. The TV technician had a strong background in TV production and the two student crew members had been working in the television media program at the Salem Schools.

COSTS

THE FEDERAL GRANT

The $160,000 budget covered activities for an 18 month period. $38,000 was allotted for the television studio, of which about $25,000 was spent on equipment, $11,000 for remodeling the space to be used for the studio, and the rest for equipment maintenance. Of the remaining $122,000, $81,540 was spent on salaries, $15,489 on benefits, $7,500 for the evaluation, and $17,433 for operating expenses which included travel, office supplies, video tapes, printing costs, telephone, cable fees, and other costs.

Abcut 65% of the entire SALEM budget was spent on staff salaries, benefits, and the evaluation. The TV studio accounted for 24% of the total expenditure, leaving 11% for operating expenses.

Staff salaries were paid according to the salary scales of the Salem City Schools. The salary range for the director was $12,000-$13,000, and $10,000-$12,000 for the teachers. The TV technician was paid $7,500. The secretary received $5,500. Both student crew members and paraprofessional tutors were paid on an hourly basis, $2.20 and $2.37, respectively. The monthly payroll averaged $4,500 per month; of that amount, $1,000 per month was encumbered for paraprofessional tutors during the nine-month period they were employed.

Most expenditures of the SALEM Project were directly related to the start up and "sunk" costs in conducting the cable experiment. About $15,000 was spent on salaries during the initial six-month period devoted to research, planning, and organizational work, which included the design and building of the TV studio. An estimated 80% of the staff's energy was devoted to television production and other activities related to the experiment.

It is estimated that no more than $20,000 was spent on activities directly related to services provided for adult learners. Later discussion will show that the costs of replicating the SALEM Cable TV Project would be incurred mainly in providing services. Costs would be relatively low once television programs are available and provisions for the cable delivery system are made.

SHARED COSTS

The Salem City Schools contributed to the SALEM Cable TV Project by absorbing costs for administrative overhead, space, utilities, and in some instances, supplies and equipment. The total in-kind contribution by the Salem City Schools was placed at $30,000.

The State Department of Education provided consultation to the SALEM Cable TV Project, visiting Salem on a regular basis.

An extremely important in-kind contribution was made by the Tri-County Cable Company which hooked up Salem High School to the cable head-end (nearly four miles away) at the cost of $5,000. Additional technical services were provided by this cable company to the SALEM Cable TV Project in cablecasting adult education programming.

MANAGEMENT OF THE SALEM PROJECT

The SALEM Cable TV Project was made a component of the Community Education Office of the Salem Schools which is in charge of adult night school, career education, and other special projects undertaken by the school district. The director of the SALEM Cable TV Project reported to the director of the Community Education Office and to the superintendent. The SALEM director also reported to the program officer at the United States Office of Education and to the liaison official at the New Jersey Department of Education.

Salem City is a small New Jersey school district serving a city of 7,500 at the elementary and middle school level. Neighboring rural districts are also served in a newly constructed high school. The district enrolls more than 2100 students and employs approximately 200 professional staff members. The size of the system allowed for direct contact between the SALEM Cable TV Project and the superintendent who was most often very accessible and interested in the project.

The organization of the SALEM Cable TV Project did not conform to the normal patterns of the school system. Unlike most school programs, SALEM was to have its base in the community, not in school. Participation of adult students was by necessity voluntary. The work of paraprofessional tutors, performed in the field, often could not be supervised directly. Much of the work performed by the staff was developmental and unprecedented locally.

The design of the project called for a nontraditional form of education, one in which feedback from adult learners and tutors weighed

heavily in policy making decisions. Furthermore, a community advisory council and curriculum advisory committee were to give guidance to the project director in developing the program. However, inasmuch as the Salem City Schools were charged with the legal responsibility for the project, many policy decisions were made by school administrators and reflected the workscope of the original proposal submitted to the U.S. Office of Education.

Whenever major decision points were reached, particularly those concerned with the experimental design of the project, they were resolved in committee. A number of times the Salem City School officials and staff met with the project evaluator and New Jersey State Officials to resolve policy matters. On several occasions, meetings included representatives of the United States Office of Education.

Broadway, Salem, New Jersey

The state and federal involvement in the project increased whenever aspects of the federal grant had to be negotiated. For example, permission for contracts to build the studio and to hire the evaluator had to be approved at the federal level. In order to secure an extension of the project, because of the initial delay, the Salem City Schools had to negotiate with both state and federal officials to satisfy each, concerning the revisions to be made in the project's workscope.

Some of the problems in defining the project's workscope can be attributed to the difference in priorities of the United States Office of Education and the local school district. The United States Office of Education is interested in long-range planning in keeping with the 309-b legislation, which is to improve adult education through experimental and innovative demonstration projects. The primary purpose of a local school district is to provide educational services and resources for the community. Hence, problems arise whenever long-range research and development do not result in local benefits, or when local educational activities do not satisfy federal, regional, or state demands for quality research and development useful for planning and replication.

PLANNING

The initial six months of the project were spent in preparation for the experiment in cable television. A television studio was designed and built in that period. A community needs assessment survey was conducted door-to-door to determine the priorities of the adults in the "target" group. The staff met several times with the Curriculum Advisory Committee, experts in the field of Adult Basic Education, to identify and resolve pedagogical issues. The Community Advisory Council was formed to provide information, to react to TV programming, to provide publicity and to promote the project.

The staff spent a significant amount of time performing research in the field of Adult Basic Education and laid the groundwork for the cable delivery system which was to include both public and private viewing sites and supportive services by paraprofessional tutors. Research of available video materials preceded decisions concerning the local production of video tapes.

SURVEYS

The SALEM staff conducted two surveys to learn about the needs and priorities of the adult population to be served. The first of these surveys was to identify the needs and interests of potential enrollees. The second survey was to learn how adult learners, the Community Advisory Council, and the Curriculum Advisory Committee regarded the relative importance of specific "life skills" and consumer education topics in the proposed SALEM curriculum.

RESULTS OF THE NEEDS ASSESSMENT/ INTEREST SURVEY

92 residents of Salem were interviewed in a door-to-door survey of areas in Salem where adults in need of basic education were known to reside. Those interviewed were predominantly black, female, between the ages of 18-40. Many reported large households. About half were housewives. Others worked in non-skilled or semi-skilled occupations. Slightly less than half of those who held jobs did "shift work." Practically all those interviewed had a TV set. About 50% had color television. More than two thirds had cable service, because the public housing projects in Salem include cable service as part of the rent.

Most of the respondents were among the 1000 adults in Salem who had not finished high school. One third of the households reported that at least one adult member had difficulty reading. One out of four individuals reported to have attended some kind of night school. Out of 91 respondents, six had attended ABE classes, ten had attended high school equivalency classes, and two had attended vocational school. Seven out of eighteen completed their course work. Reasons given for dropping out were the lack of transportation, personal problems, lack of baby sitting, and loss of interest.

More than 75% of the adults were interested in receiving information through television. The desire to learn basic reading and math skills was strong. Many cited convenience factors as reasons for wanting home-based instruction. Preferences were nearly even for watching cable programming mornings, afternoons, and evenings.

An attempt was made to ascertain the viewing and reading habits of the respondents. A great number watched situation comedies, soap operas, and game shows. Afternoons and evenings were the heaviest viewing times. Many of the adults said that they would value reading books, newspapers, magazines, and their child's homework.

Only 15 *adults out of* 92 *indicated that reading better would help them in their job, and* 11 *felt that this would lead to a promotion or better job.*

Adults were asked whether they had questions about local community services. Many felt they had a lack of knowledge about housing, welfare, and consumer matters. People were asked about their interests. The domestic arts and music rated highest. Most people were shy about participating in cable production if asked. About 50% were interested in a high school equivalency program via cable.

The survey was useful insofar as it provided information about potential enrollees. It also was the first contact with adult learners in the recruitment drive that was to follow.

> The project evaluator concluded:
> . . . it is difficult to establish a program or policy solely on findings from needs assessment. The information gathered in such a survey remains valid, but is no indication of the type of people who will actually participate in a program after it has been established. However, a significant and influential result of the Salem survey was the discovery of an apparent need for ABE rather than or in addition to GED programs in Salem.[1]

RESULTS OF THE "LIFE SKILLS" SURVEY

The SALEM staff based this survey partially on the objectives in the APL Study.[2] It included a total of 81 specific skills, under the general headings of handling money, shopping, reading, and following instruction, reading and using alphabetized or categorized materials, practicing number skills, writing letters and addressing envelopes, using the telephone, reading and completing forms, using numerical charts, and miscellaneous social skills. Respondents were asked to indicate according to scale the priority of specific skills in the SALEM curriculum.

The purpose of the survey was to find out which life skills the respondents felt should be included in the SALEM Cable TV Project. The Curriculum Advisory Committee members felt that most of the skills were top priority and should be taught. Community Advisory Council members tended to rate the needs of certain skills lower than the professionals on the Committee did. Members of the target population tended to think that most of the life skills did not need to be taught. Greatest agreement was in the need to teach basic skills: math and reading.

The survey was intended only for planning the project, but it raised questions not answered by the APL Study concerning how people with varying educational and social backgrounds perceive the educational needs of undereducated adults.

COMMUNITY ADVISORY COUNCIL MEETINGS

The first of five Community Advisory Council meetings was held in March 1974. 20 members attended, including the local Mayor, newspaper editor, representatives from business and social service agencies, educators, and other community leaders. The chief purpose of the first meeting was to brief members about the SALEM Cable TV Project and its proposed plans, and to define the role of the Council which was to give advice on policy matters, to review the content of video tapes, and to assist in publicity and promotion. The spirit of the meeting was extremely cooperative. Agencies agreed to assist in referring students and the local cable operator offered to provide cable services to any municipal building free of charge.

1. Clark, Terry A., *The Salem Cable Television Project for Adult Learners, Interim Report #2, Results of the Pilot Test*, Ocko Associates, 1975.
2. Northcutt, et al, *op cit.*

At the second meeting, held in April, 15 members were present. They were informed about the results of the needs assessment survey of potential students in Salem. Most of the meeting, however, was devoted to the criticism of several pilot video tapes. The SALEM Staff showed the Council alternative ways of presenting a lesson on TV, using lecture and comic dramatization as formats.

In reaction to the pilot tapes, the Council members felt that the SALEM staff should avoid condescension, which they perceived in the comical treatment of the consumer education lesson. They also indicated that the demonstrated lecture format was boring and that comic dramatization should not be used if it distracts the viewer from the lesson.

Some members suggested that instead of a strong focus on humor, the SALEM staff should combine the lecture approach with concrete demonstrations, which relate concepts and abstractions to daily living. The Council warned the staff against overestimating the educational level of the intended adult audience. One member said that many adults need help in life skills which most people take for granted, such as using the telephone, buying a money order, and deciphering a bill.

The Council acknowledged that the staff faced a problem in trying to please a group with diverse educational backgrounds and interests. Members felt that an effort should be made to reach those at the lowest educational level as SALEM was proposed to do.

Council members gave advice on the planned recruitment campaign, which they felt should be conducted on a person-to-person basis. One member indicated that adults are ashamed of admitting that they are illiterate, and sometimes will express the desire to help their children as a rationale for entering an ABE program.

The testing of students was discussed. Council members believed that long standardized tests would alienate students. They felt that some alternative way of measuring the results of the project should be sought by the staff.

The theme of the third Community Advisory Meeting, held in May, was the question of how to motivate adult learners. The merits of using material rewards as incentives to enroll and stay in the program was discussed. Some members believed that small gifts would be appropriate but most important, it was felt that the staff must show the students how learning can have a positive effect in their lives.

Council members suggested that the planned recruitment campaign should take place during the month preceding enrollment, and that it should use local mass media and flyers in support of word-of-mouth publicity in the neighborhoods of adult learners. Members felt that the campaign should be straightforward and honest, perhaps using dramatized situations showing the disadvantages of illiteracy.

Council members also expressed a concern for the TV lessons in math and reading. They feared that the two basic skills programs would be boring unless special efforts were made to make them interesting. Members felt that the staff should arrive at a happy medium between direct teaching and entertainment.

The fourth meeting of the Council in June attracted only three members. A rather open-ended discussion revealed great uncertainty concerning both the educational and social needs of adult learners. One member felt that health and economic problems were more pressing for some adults than illiterary. A prototype reading program was shown to the members. A suggestion was made to increase the frequency of pictorial context clues for beginning readers.

The fifth and last of the meetings, held in August, focused on the presentation of sample tapes produced by the SALEM staff. The Council reviewed reading, math, and consumer education TV lessons.

The basic reading and math tapes were well received. The Council understood that the level of presentation was appropriate. Some complained of poor graphics. Opinion was divided on the use of music as to whether it adds interest or distracts the viewers. The need for visual variety was expressed.

The consumer education tape on frauds drew considerable reaction. Council members suggested other topics for other consumer education tapes, including shoplifting, maternity care, and mental health.

Several months later, a dinner was held for the Community Advisory Council members. Representatives from the New Jersey State Department of Education and the United States Office of Education attended.

CURRICULUM ADVISORY COMMITTEE MEETINGS

16 members of the Committee met in March 1974 to assist the staff in developing the ABE curriculum for television. They included representatives from the State Department of Education, professors in adult education, persons active in literacy training, and local educators. The Committee was briefed on the project's progress which by that time included a survey of potential enrollees.

The results of the survey sparked discussion among Committee members. They were interested in the finding that few respondents felt that reading skills would help them to acquire better jobs or promotions. Some members felt that the

value of basic skills in daily living would not be realized by undereducated adults even though these skills are essential in dealing with problems in every-day life. One member said that the long-range reward of employment cannot be guaranteed to those participating in SALEM; however, he added that there was a need for some kind of positive reinforcement, preferably immediate gratification in the form of rewards.

A game show format was suggested for cable programming in belief that it elicits the competitive spirit. Some members disagreed with that idea in belief that education need not be debased to be palatable and meaningful. Another member felt that it is too idealistic to expect undereducated adults to be motivated to learn for learning's sake. By no means did these professionals reach a consensus concerning what motivates adults.

The Committee agreed that consumer education is the proper vehicle to teach the basic skills of reading, writing, and arithmetic. Prevocational education was deemed irrelevant in light of the economic situation in Salem.

Several Committee members believed that one-to-one tutoring was necessary to prepare illiterate adults for group learning situations. They believed that television could partially serve this function, but not replace the tutor. One member recommended the establishment of a "literacy council" to provide one-to-one tutoring by volunteers. This idea was deemed impractical for Salem because of the scarcity of potential volunteers.

The Committee recommended an experimental design which would stratify adults into three groups: television viewers with paraprofessional visits, but without any tutoring; television viewers with tutoring in groups; and television viewers with individualized tutoring.[1] The Committee also stressed the need for pre- and post-testing.

A second Curriculum Advisory Committee meeting was held in May to review the plans for television production presented by the staff. These plans called for a math, reading, and consumer education series. Teachers were to develop and review curriculum materials. Paraprofessionals were to recruit adult learners, tutor, and assist in the gathering of feedback from learners. Group viewing and tutoring centers were to be established. Criterion-referenced tests would be given and standardized tests would be omitted.

The Committee recommended that pilot shows be produced and shown to the Community Advisory Council. These tapes were to find the proper balance between instruction and entertainment. It was suggested that a television scene be used to introduce a particular concept, that an application of this to a "real life" situation should follow, and that the program should finally return the classroom scene for reinforcement. Feedback following completion of written work, tutoring, and responses to telephone "call in" would provide additional reinforcement.

Committee members also suggested that the basic math and reading series be interspersed among the video tape segments on life-coping skills. Some believed that it might be desirable to merge the math and consumer education series.

It was the committee's feeling that the quality of the series is far more important than the quantity of programs. They said that a top priority was to find ways of motivating and reaching adult learners through the television medium. It was felt that feedback obtained through pilot programs would help to assure quality control.

Interview at the Social Security Office, Bridgeton, New Jersey

CURRICULUM SEARCH

The staff was faced with the task of developing a curriculum for television which would accomplish the following:

1. To teach basic math and reading skills to adults with less than a fifth grade education.
2. To experiment by relating basic academic skills to life-coping skills with a primary emphasis on consumer education.
3. To attempt the use of already produced video materials whenever possible.

TIME CONSTRAINTS

The staff was faced with the problem of finding appropriate curriculum materials in

1. This suggestion was not adopted because the SALEM target group was not large enough for stratification. A decision was made to use this design if the project were to be refunded in a larger target area.

order to meet production deadlines. Much of the initial six months planning period of the project was devoted to the designing and building of the TV studio. Hence, the curriculum search was brief, perhaps too brief, to have considered every alternative.

AVAILABILITY OF ALREADY PRODUCED VIDEO PROGRAMS

In order to avoid full scale TV production in Salem, the staff was anxious to locate programs appropriate for undereducated adults. It became readily apparent that there were few such programs available. Several literacy series had been produced (see previous chapter), but these did not use television creatively. The staff previewed several video reading series. The criteria for rejecting these was the inappropriateness for adults, the presumption of literacy among viewers, and pedagogical shortcomings.

The staff searched for a math series which would be appropriate for ABE students. It was found that the available math programs were targeted at school aged children.[1]

The search was also made for programs about consumer education and life-coping skills. The staff found several series available for use, including the *Rural Family Development Series*, *360 Degrees*, and *Consumer Survival Kit*. Preview sessions revealed that the *RFD Series*, although of excellent quality, was inappropriate for the target group in Salem; it was too regional in scope and too "white middle class" in character.

BASIC SKILLS CURRICULUM

The staff searched for a written curriculum which was to meet the following criteria:

1. Ease of adaptation to television.
2. Appropriateness for adults with less than fifth grade education.

The staff found that the *New Streamlined English Reading Series* was most appropriate for illiterate and functionally illiterate adults.[2] The lessons were easily translated into video programs, for the picture/symbol association method was readily conveyed visually. The pacing of the lessons, too, conformed to the scheduling envisioned by the staff at that time. A detailed teacher's guide was available to aid the reading teacher in presenting the lessons. Furthermore, since this reading series had been validated in several previous studies, there was every reason to use it. The staff hesitated at first, believing that reading might be taught more effectively if related directly to consumer education and life-coping skills, an approach which several Curriculum Advisory Committee members suggested. In fact, one such curriculum was considered, but was deemed inappropriate because it presumed at least a third grade level of literacy.[3] Hence, the staff decided to teach reading as a skill only, on the advice of several other Committee members.

The staff searched for a math series which could be readily adapted to television, and found none. It was intended that the math TV lessons would include some consumer education and life skills, and that they would not presume literacy in teaching math concepts.

It was decided to produce a math series without basing it on any one text. The math teacher selected what he considered the best approaches in several math texts, and proceeded to write his own curriculum, the content and pace of which would be designed specifically for the adults enrolled in the SALEM Cable TV Project.

The *360 Degrees* Series, although targeted at a black audience, contained too little instruction and too much rhetoric for the purposes of the SALEM Project; it, too, was regionally limited. *The Consumer Survival Kit*, though well produced, was aimed at a literate audience and was being shown on public television anyway.

The staff considered renting films about specific life-coping skills. Several dozen film distributors were contacted to obtain permission and prices for cablecasting their productions. Many distributors were unwilling to give permission for cablecasting. In other cases, the price was prohibitive.

1. At present, only scattered catalogues with scant descriptions are available. An abstracting system and clearinghouse for audio-visual materials might be useful in serving different regions and states.

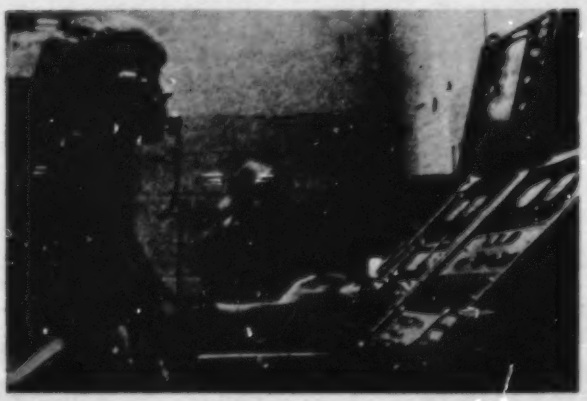
2. Laubach, Frank C., Elizabeth M. Kirk, and Robert S. Laubach, *The New Streamlined English Series*, New Readers Press, Syracuse, 1966.

3. Smith, Edwin., and George F. Aker, *Building Adult Reading Skills* (manuscript), Education Achievement Corporation, Waco, Texas, 1974

THE TELEVISION STUDIO

A major part of the SALEM Proposal was to build a TV studio for producing and cablecasting lessons. The staff worked with several potential bidders in developing the specifications for TV equipment and for remodeling the studio. They also discussed the relative merits of TV equipment with others involved in television production. At that time, the "state of the art" in video was rapidly changing; the video cassette format was beginning to be popular.

A final decision was made to produce programs using a half-inch, black and white format because it was thought to be the most economical. Costs for the cassette and the one inch formats, and the expense of color equipment and maintenance, exceeded the limits of the SALEM budget. The local schools already had half-inch video tape recorders which could be used for back up. The staff compared the three possible formats in trial cablecasts and found no appreciable difference in technical quality.



The production staff found that the special effects generator was extremely valuable in the production of lessons. The backspace editing capability of the video tape recorders facilitated the use of recorded video inserts.

On-location video taping was made possible by a portable video unit; however, the video quality of the scenes taped with the "portapak" was not as good as those taped in the studio, especially when they were edited to the third generation.

BUILDING A TV STUDIO

Before building a TV studio, it is advisable to determine whether there are any local institutions with underutilized equipment, willing to establish a cooperative facility. A studio represents a considerable capital investment, high depreciation, and high maintenance costs; it also requires qualified personnel to run it. Without operating funds, studios tend to be underutilized. For these reasons, it is probably best that the costs of a studio be amortized through the cooperation of several institutions.

The designing and building of the TV studio in Salem took six months, during which time specifications were written, bids were advertised and received, equipment was delivered and installed, and studio space was remodeled. On the basis of this experience, it is advisable that a qualified person design the specifications for studio equipment, or a consultant be hired for that purpose. The choice of equipment should reflect the planned production. The studio must be designed as part of the whole system, which also includes cable and home receivers. The rule that a system is only as good as its weakest component certainly holds true for cablecasting.

THE CABLE DELIVERY SYSTEM

The most important aspect of the SALEM Cable TV Project was to explore the feasibility of cable TV technology in adult basic education. The SALEM lessons were to be cablecast on Channel Seven-B of Tri-County Cable, a 24 channel system reaching about 2000 subscribers in Salem and neighboring Pennsville. All of the Salem City Schools were connected to the cable system. This made it possible to send signals directly to the homes of adult learners from the SALEM studio, located at the local high school.

The first planning step was to determine how many undereducated adults in Salem subscribed to cable services. It was found that more than 50% of the individuals interviewed in the needs assessment survey had cable. Accounting for this high proportion of subscribers is the fact that Salem is 35 miles from Philadelphia. Without a good rooftop antenna, reception is weak. Most people in Salem subscribe to cable to improve signal reception, although some are interested in local programming, such as high school sporting events. People who are not able to erect an antenna, mostly apartment dwellers, must depend either on a master antenna system or cable to improve television reception. Many members of the SALEM target group lived in public housing, in which cable was included in the rent; others were tenants elsewhere.

PLANNING FOR CABLE

The potential use of cable television in Adult Basic Education is growing; FCC and local regulations often provide for channels to

be allotted for educational programming. In planning to use cable television, the educator should study the local cable system and audience. Does the target audience subscribe to cable? What is the policy of the local cable operator with regard to access groups? What are the logistics involved in cablecasting? Is the desired channel space and time available? There are numerous organizations, access groups, and publications which the educator can consult to obtain information about cable.[1]

FOCUSING THE PROJECT

During May, 1974, the director, assistant director, and Salem School administrators met with state and federal officials to modify several aspects of SALEM's workscope. This meeting was held to agree on what the project was to accomplish in order to receive a six-month extension from the United States Office of Education.[2]

Procedures for the evaluation were clarified. Standardized pre- and post-testing was considered irrelevant to the project's curriculum. Also, the Community Advisory Council felt that standardized tests might alienate students. As a result, the decision was reached to use only criterion-referenced pre- and post-tests to measure learning. Affective data was to be based on the paraprofessional tutors' comments about the problems encountered and progress made by their students. Teachers were to interpret the comments and to ascertain the extent of viewing and participation by adult students.

In that meeting with government officials, decisions were made concerning the management of the SALEM Cable TV Project during its next phase. Newly hired teachers were to develop behavioral objectives for the curriculum and to evaluate the performance of adult students. The staff was to produce or acquire video tapes based on the curriculum. Printed materials were to accompany lessons. A complete support system was to be organized, which would include in-service training of paraprofessional tutors.

PROGRAMMING

Between July, 1974 and June, 1975, the SALEM staff produced a total of 121 lessons, amounting to approximately 50 hours of instruction via television. These included 59 reading lessons, 49 math lessons, and 13 programs in consumer education. On the average, about three programs were produced each week in order to keep pace with the cablecast schedule.

THE READING TAPES

The tapes corresponded to the sequence of lessons in the New Streamlined English skill books. With the assistance of a consultant versed in the Laubach method, the skill books were adapted to television according to the Teachers' Manual provided by the publisher. The TV teacher faced the problem of making the reading lessons interesting on television within the confines of the Laubach pedagogical method. Additional problems were encountered in producing graphics for television to correspond with the printed lessons.

Store prices were incorporated in several math lessons

THE MATH TAPES

The teacher sought to relate math facts to their application in every day life. For example, addition and subtraction were taught by balancing a check book and deciphering bills. Vignettes were used to dramatize the usefulness of math skills. Graphics, on-location scenes, and visuals were used to avoid the "talking face" approach still common in instructional television.

THE CONSUMER EDUCATION TAPES

The *Making It* tapes were initially conceived as a consumer/life skills series for local consumption. Programs were produced on credit, consumer fraud, buying a used car, and shopping wisely for food. Skits were written to dramatize problems. On-location scenes, through use of the video "portapak," were combined with lessons taped in the studio.

1. The extension from January 1 to July 31, 1975 was granted on November 15, 1974.
2. Tate, Charles (ed.), *Cable Television in The Cities: Community Control, Public Access, and Minority Ownership*. The Urban Institute, Washington, D.C., 1971.

The emphasis of *Making It* shifted to programs about local social services, due to the increased availability of consumer education programs on both commercial and public television. With the cooperation of local agencies, shows were produced on family planning, social security, food stamps, and preventive health care for pre-schoolers. In each of these programs, the SALEM staff worked very closely with the agency involved, both in script writing and in consultation.

The third phase of *Making It* called for the participation of adult learners in producing the TV programs. Several tapes were made on housing problems, as seen from the point of view of the ABE students who were involved in a rent strike to force the landlord to make repairs. A lawyer from Camden Regional Legal Services appeared in one of the tapes to discuss the legal rights and responsibilities of the tenants and landlord.

All three series required creativity on the part of the teachers in adapting basic skills lessons to television. A more detailed discussion can be found in the section on methodology and procedures.

EARLY PRODUCTION EFFORTS

The initial tapes were unsatisfactory from both a pedagogical and technical point of view. This was partially due to many demands on staff time. The organization of the cable/tutor support system took much time and all employees had to become familiar with their new jobs. There was insufficient time for evaluating and retaping lessons as the deadline for actual cablecasting was only a few months away.

To meet the deadlines agreed upon with the United States Office of Education, the decision was made to begin production, and to make improvements along the way.

The first reading tapes were produced by the assistant director who had no background in education. She did, however, have stage experience and worked with the consultant, versed in the Laubach method, to get the video taping started. She was later replaced by a remedial reading teacher who made substantial improvements in the TV lessons.

The first math tapes were produced by a math teacher from the Salem City Schools who worked for the project full-time during the summer and part-time during the fall. He was not able to devote enough time to the project and was replaced by a full-time math teacher who took over the job of producing the *Useful Math* series.

It should be noted that the early production efforts were somewhat hampered by uncertainties surrounding the project at that time. The United States Office of Education still had not granted the extension to the project and it was difficult to hire a qualified teacher without being able to offer at least a 10 month contract. Advice to scale down production and to produce experimental "pilot" shows was given unofficially and without any assurances to the Salem City Schools that the extension was not contingent upon the number of programs produced.

LATER PRODUCTION EFFORTS

The extension granted by the United States Office of Education made it possible to hire the two full-time teachers. The new reading teacher, who had initially worked on the consumer education series, took over the production of the reading tapes, experimenting with skits and dramatizations to enliven the drills and stories in the Laubach series. The new math teacher began organizing the production of *Useful Math*. Technical improvements were made when the studio became fully equipped and the crew gained production experience.

Teaching simple division through a game of poker.

By the end of 1974, 26 reading programs, 22 math programs, and 10 consumer education programs were produced. Feedback from viewers, obtained during the pilot semester of cable casts, revealed that the *Useful Math* series was paced too quickly. Consequently, the math teacher decided to present the material at two levels of difficulty. Some inadequacies were noted

in the pedagogy of the early math tapes, for they relied too much on the lecture approach.

The decision was made by the staff to retape the math lessons. The project evaluator cautioned the staff not to take on this extra production burden, if at all possible. But, since these earlier math tapes were inadequate, the decision remained to retape all of them.

The pressure to keep up production in keeping pace with cablecasts remained constant to the end of the project. Cablecasting also slowed down production by tying up studio equipment and personnel.

A meeting was held with school administrators in an attempt to modify production and cablecasting schedules. In this meeting, which involved the project evaluator, an agreement was reached to divide the reading lessons into two parts, cablecasting these at the rate of one lesson (instead of two) per week. The consumer education series was to be phased out, and the production of the math and reading series was to be made top priority. As a result, some of the pressure on the staff was alleviated, which permitted improvements in production quality. Hence, the video tapes produced in the Spring of 1975 were a vast improvement over those produced in 1974.

A LESSON

The SALEM experience includes some valuable lessons for anyone contemplating small scale TV production. Aside from time constraints, SALEM lacked the budget to assume quality control. The staff and evaluator concluded that at least three years are needed to develop and produce a TV curriculum. The tapes produced by SALEM were not intended for distribution; however, if plans had called for a national field test, an organization with experience in TV production should have undertaken the task of producing the tapes.

THE TUTORS

The Alabama study indicated that the success of a project depends on the quality of tutoring. With this in mind, the staff concentrated on the training of paraprofessional tutors.

In the SALEM Project, the tutors were also paid to be recruiters. In addition, their responsibilities included record keeping, distributing worksheets and reading materials, and giving simple criterion-referenced tests. Tutors were required to attend weekly meetings with the rest of the professional staff to evaluate the progress made by their students and to plan for coming lessons.

PRE-SERVICE TRAINING

A five day workshop was held in late August, 1974, for paraprofessional tutors joining the project. The training package was developed with the assistance of members of the Curriculum Advisory Committee. One day was for orientation, three days were spent on training for the three curriculum models, and the fifth day was devoted to the planning of the recruitment campaign and administrational procedures.

IN-SERVICE TRAINING

Regular meetings were held on Fridays to review the previous week's activities. Each tutor was held responsible for keeping records for the project's evaluation. Forms for enrollment, follow-ups, and logs for the tutors' weekly activities were standardized and centralized. The major purpose of the weekly meeting was to enable the tutor to resolve pedagogical problems by coming into contact with the math and reading teachers, who would review with them each students' progress and introduce supplementary reading and math materials to be used with their students.

Some of the weekly meeting were extended to include in-service training in pedagogy, testing, data collection, and recording keeping. A training booklet was produced for the tutors.

Reviewing weekly reports submitted by tutors.

PROBLEMS

Due to time constraints, not enough care was given to the screening and training of tutors. Inspite of the week-long pre-service sessions and weekly meetings, the preparation of the tutors was still not adequate. All but one had no experience in education. Some of the 14 tutors who were initially hired were not qualified or motivated to perform their jobs, and did not attend meetings. Others kept inaccurate logs and reported erroneous number of hours worked.

Many of the problems during the pilot semester occurred because a trial and error method was used to find tutors. Most of the tutors were hired from the target group community in belief that they would have the contacts to find and enroll students. The salary for tutors was low ($2.37 per hour) which limited the number of qualified applicants. Local School officials, who had previous experience with paraprofessionals, advised the SALEM staff to expect 50% of the aides to be terminated. This explains why 14 were originally hired.

By the time the field test began in 1975, the tutors who remained with the project had become more experienced. There were still some problems in record keeping and data collection by the tutors which had to be resolved continuously in the weekly meetings. The staff found some serious limitations, due to lack of education, in the ability of all but one aide to follow pedagogical methods discussed in the weekly meetings. In one case, it is believed that a tutor performed the work for students in order to justify reporting hours spent with students during which no work was performed.

By the end of the project, it was felt that the tutor support system worked fairly well. With the experience gained from hindsight, it could have worked better.

RECOMMENDATIONS

The staff found that it is extremely important that tutors are properly screened and trained. If tutors are expected to recruit students, it is helpful that they have contact with people in the target group. Tutors can be paid or work as volunteers.

The SALEM Project's experience with paid tutors involved difficulties in managing their activities in the field. Possibly, volunteers might be located to serve as tutors in home-based instruction, provided that there are no record keeping responsibilities. On the other hand, if accountability of tutors is needed and ascertainable, it is advisable to use paid tutors. One advantage of paid tutors is that they can be trained for extended periods of time. The disadvantage is cost.

PUBLICITY AND RECRUITMENT

A personal approach of knocking on doors and relying on word-of-mouth was used to interest adults in the SALEM Cable TV Project. As mentioned earlier, the staff conducted a door-to-door survey to determine local needs and priorities.

Several articles in the *Salem Sunbeam* enabled the project to become known among social service agencies which were later helpful in referring adults to the project. Even though illiterate adults were not reached directly by newspaper, they did come into contact with those who did read the *Salem Sunbeam*.

A tutor visits her student.

Radio spots, posters, fliers, and brochures were also used to supplement the person-to-person publicity campaign. The extent to which these had an impact is not known; however, the staff came into contact with many people in Salem while handing out and posting publicity materials. By the end of the publicity campaign, the SALEM Cable TV Project was well known in the community.

The Community Advisory Council set the tone of the publicity campaign. The approach

was to be simple and direct. No promises of better employment opportunities were to be made. A free educational service was offered and the importance of basic reading and math skills was dramatized.

CONCLUSIONS

The SALEM campaign was suited to the patterns of a small rural city; personal contact work was the key element of success. Mass media techniques are most effective when they are used in concert with interpersonal interaction.

It is important to understand the structure of a local community to determine which private organizations, governmental agencies, and community groups could be helpful in promoting an educational program.

THE PILOT TEST

A Pilot Test, studying the effect of instructional tapes produced for reading Skillbook I and II and the original 22 math lessons, was conducted from September 16 to December 20, 1974.

Cablecasting of instructional programs during the Pilot Study was conducted four days a week, Monday through Thursday. Two reading, two math lessons, and one *Making It* program was shown each week. A lesson was aired three times in one day to allow for optimal viewing convenience for students. Fridays were reserved for scheduled reviews and call-ins.

Paraprofessional aides distributed reading skillbooks, math workbooks, and homework materials. They also set up tutoring schedules with each of their students and kept records of hours tutored. Pre- and post-tests were administered to the students.

TECHNICAL PROBLEMS

During the beginning of cablecasts, there were difficulties in sending out a clear signal. The local cable engineer cited several possible problems, including the lack of signal strength, inadequate television receivers, the failure of viewers to tune their sets properly, and poor technical quality of the programming. Problems in the cable system were also mentioned as a possible source of trouble. Most of the transmission and reception problems were solved by the purchase of a top quality modulator which made it possible to transmit a strong signal from the SALEM studio over the cable system.

TELEPHONE FEEDBACK

A codaphone was installed at the High School to record any call-ins from students with problems or from observers with comments and questions. The codaphone was removed because very few calls were received from students. In subsequent efforts to call students by telephone, it was found that a substantial number of students didn't have telephones of their own and gave numbers of friends or relatives through whom they could be reached.

VIEWING SITES

Television sets equipped with cable service were installed at two viewing sites. One of the sites was located in the community room of a housing project and the television was stolen within the first month. The other site was located in the Salem Free Public Library, which was used by several tutors. Students with cable were reluctant to watch programs at public sites by themselves and preferred going to the homes of their tutor and friends. For that reason, SALEM decided to give free cable subscription to tutors who would make their homes available as viewing sites for their students.

Students honored at a dinner after the Pilot Test.

THE FIELD TEST

Beginning on January 15, the field test covered a twenty week period. The reading and consumer education tapes, shown during the Pilot Test, were repeated in addition to the new programs produced in 1975, including the revised math series.

The cablecast schedule reflected changes made in the pacing of the lessons, which was slower than during the Pilot Test.

The emphasis of the field test was to measure the learning from the tutoring and tapes in math and reading. Data collection was more rigorous and tutors were more closely supervised than in the Pilot Test. The consumer education tapes were phased out because of production time constraints.

Since contacts by telephone proved to be impractical, the teachers visited most of the students at least once in order to learn more about their educational needs.

Technical problems in cable transmission were solved by the fifth week of cablecasts. The viewing site at the public housing project was eliminated, due to the theft of its television set. Another viewing site was organized at Salem High School.

A tutor and her students at the Salem High School viewing site.

THE PHILADELPHIA FIELD TEST

Since the SALEM Proposal called for the replication of the project in at least one community, the project director arranged to have the SALEM reading tapes field tested under the auspices of the Philadelphia Adult Basic Education Academy in 1975.

Cablecasts were to take place on Telesystems Cable, franchised for South Philadelphia, which was extremely cooperative in providing free access time. A $5,545 grant was received from the William Penn Foundation to pay for tape duplication and the salary for a part-time coordinator. In addition, two CETA[1] workers were to be hired to recruit students and to work with voluntary tutors.

The Philadelphia field test was to involve voluntary rather than paid tutors, who would meet with students in learning centers established in three branches of the Philadelphia Free Library. Very few of the potential enrollees were expected to have cable in their homes.

To recruit students and tutors, the Philadelphia Adult Basic Education Academy contacted local community groups and advertised in local papers. A publicity brochure was also produced.

The significance of the Philadelphia Field Test is that it would attempt to replicate the SALEM Cable TV Project in an urban area. Costs would be much lower than in Salem since the tapes have already been produced and the staff is to be largely voluntary and subsidized.

RESULTS

During the Spring and Summer of 1975, pilot cablecasts were made for the test in South Philadelphia. These initial efforts were deemed unsuccessful by the SALEM evaluator since volunteers were not readily available to recruit students. The full field test, which is to include staffing for recruitment, is currently in the formative stage.

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1. Comprehensive Educational Training Act.

Chapter Three: Methodology

Adult Basic Education is a relatively new field. Within the last decade, there has been an accumulation of research and experience concerning the teaching of undereducated adults, to the extent that many educators now realize that adult education poses great pedagogical problems of its own.

A UNESCO Study, on the principles and pedagogical methods of functional literacy, provided some guidance to the curriculum planning and development of SALEM.[1] This study stressed the fact that since adults tire easily because of other responsibilities, their participation is, by necessity, voluntary. For that reason, instructional programs must meet the *real* needs, as perceived by the adults themselves, in order to hold their interest.

THE LACK OF DIRECT FEEDBACK

The task of the production staff was to reach an audience which was, for the most part, invisible. Certainly, the tutors provided indirect feedback, but never enough. The teachers met with students on numerous occasions, but again feedback was not always reliable since many of the adults were prone to say favorable things about the program as a matter of courtesy.

The SALEM staff felt uncertain, particularly at the beginning of the project, to be producing tapes for an audience whose tastes, preferences, and learning needs were still largely uncharted, inspite of needs assessment surveys and meetings with advisory groups. The teachers were in a "black box," trying different approaches while awaiting patiently the gradual feedback from students to assist in making changes in their teaching methods. At the beginning of the project, one teacher said, "If only I knew who would be watching, even if only three people, I would know how to teach." The teachers were faced with the fact that television is a one-way medium of communication, and that obtaining feedback is a delicate matter that requires time and flexibility.

Problems emerged as soon as the SALEM teachers realized the task of adapting an ABE curriculum to television. Should the tapes emphasize straightforward instruction, including lectures, drills, and exercises? Or, should the emphasis be on the use of video, primarily as a motivational tool?

One of the main difficulties faced by the staff was the lack of student feedback; until feedback was obtained no one knew exactly how the tapes would best be used. How many times a week should the lessons be shown and how fast or slow should they go? Should they be used as a primary or secondary teaching device? Should the tutor help aqults before, during, or after the shows? To what extent would the student have to rely upon direct assistance from tutors to learn basic skills?

PROBLEMS IN ADAPTATION

The publishers of the *New Streamlined English Series* believed that many of the strong points of the Laubach reading method were lost in being adapted to television. They raised questions concerning the pacing of the lessons and how the actual reading process was taught on television. Although the above mentioned problems were constantly considered and worked on during the project, they remained largely

1. Unesco, *Practical Guide to Functional Literacy; a method of training for television*, New York, 1972

unanswered, even at the end of the field test; however, the staff concluded that any basic reading or math TV program, no matter how professionally done or how well adapted, would not stand by itself as the only instructional device in an effective ABE program.

In the SALEM Project, video was used as a primary teaching device, as was originally proposed to the United States Office of Education by the Salem City Schools. Due to the time constraints in developing the TV curriculum, the staff did not experiment with the various possible uses of TV and tutors. The policy decision to use TV as a primary teaching device did not, however, eliminate the need to use video as a motivational tool. Hence, the issue of whether TV should be a primary or secondary teaching device was ever present in adapting the ABE curriculum to TV.

THE TUTOR'S ROLE

The SALEM math and reading tapes, used as primary vehicles of instruction, were to provide a minimum standard for home-based instruction, guiding both tutor and student in the courses of study.

The tutor's role was to support the televised lessons. Tutors were instructed either to watch the TV lessons with the students, reviewing the lesson afterwards, or to visit the student after a scheduled cablecast for review. Ideally, the tutor was to reinforce the lesson. In practice, a number of things happened. In some cases, the tutor presented a lesson and the student did not see the televised version at all, or viewed the lesson and did not meet with the tutor that week.

In a learning center, or in a controlled situation, it is possible to ensure that tutors and students use the TV lessons in a prescribed way, as happened with one group of students who came regularly to the high school to watch the programs with their tutor. But, when instruction is based in the home, there is no way of guaranteeing that all lessons are watched, or that the tutor follows the prescribed methodology.

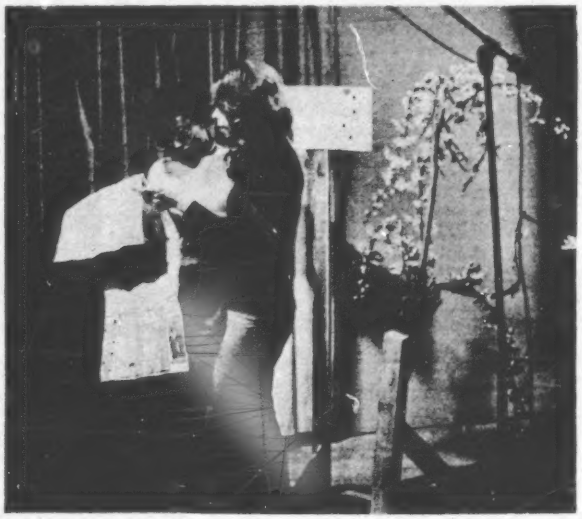
Since the purpose of using cable TV was to achieve flexibility, and thereby increase participation in ABE, it would have been pointless to impose a strict routine for watching programs and rendering tutorial assistance.

The philosophy of the SALEM Cable TV Project was pragmatic. The idea was to find ways of making adult education fit the style and temperament of the particular target group, to make it attractive, practical and enjoyable. In Salem, the approach used was low-keyed and friendly. The value of reliable personal contact between tutor and student was stressed. This was considered to be far more important than adherence to a strict methodology.

SCRIPTING FOR TV

Having produced more than 100 TV lessons, the SALEM teachers gained an understanding of the principles which underlie instructional TV programming.

The SALEM staff used two approaches in producing the two basic skills series. The reading lessons involved the adaptation of an existing text to TV. The math lessons required the entire creation of a curriculum for TV, including work sheets.



The advantage of adaptation is that workbooks need not be produced; nor, does the curriculum need to be validated if it has been field tested already. However, adaptations are problematic, particularly when the materials are not suitable for TV. Conversely, when a curriculum is created especially for TV, a workbook or text has to be produced in support of the TV programs. As a result, there is flexibility in scripting, but much additional time is needed in curriculum development and validation.

Regardless of which approach is used to create a curriculum for TV, the quality of TV lessons depends on well-planned scripts. The structure and style of a TV lesson should be consistent with previous lesson; lecture-demonstrations and drills should be balanced with high interest segments, such as dramatic or humorous vignettes.

It is important that the script provide for a variety of visuals, including on-location video segments, slides, photos, graphics, and objects brought into the studio. Examples from everyday life should be used to illustrate basic skills and concepts. TV lessons should not be excessively long, preferably no more than 20 minutes.

In scripting for ABE students, the viewer must always be kept in mind. Feedback from viewers and tutors is extremely important for the proper presentation and pacing of lessons.

TEACHING VIA TV

The TV teacher or host is the key to the success of instructional TV. Upon this person falls the responsibility of motivating the viewer. The host gives structure and unity to the program, introducing the learning objectives, giving context clues, and reviewing the lesson when necessary.

Above all, the TV teacher must convey a positive feeling about learning, inspiring confidence in the viewer, and giving positive reinforcement when eliciting viewer participation in drills.

The TV teacher must avoid condescension when presenting basic skills materials to adults. The language used by the teacher should be simple and straightforward; avoid "educated" words, and still communicate on an adult level.

The TV lessons must correspond to the accompanying text or workbook, and the TV teacher should refer to them. Televised instruction is most effective when used in conjunction with work being done by students.

MOTIVATING ABE STUDENTS

Perhaps more than anything, it was the personal attention which students received from their tutors which motivated them to stay in the SALEM program. To be sure, the televised instruction also elicited interest, but without the tutor to provide support and encouragement, the student would have been isolated in finding the satisfaction which learning as its own reward brings.

Many undereducated people value the idea of education since education is usually identified with wealth and status. However, it is quite another matter to convince undereducated adults to study when there are no immediate economic or social rewards in sight, as was pointed out by the Curriculum Advisory Committee.

SOCIAL REWARDS

SALEM emphasized social rewards, foremost in the students' relationship with tutors and teachers. In these relationships, free from unreal promises of economic advancement, there was a measure of pride and self-fulfillment which students expressed.

Dinners were held to honor students upon completion of the pilot and field test semesters. During these dinners, at which certificates of completion were given, the students were pleased at receiving formal recognition for educational achievement.

MATERIAL REWARDS

It was thought that material rewards might motivate adult students to complete homework lessons. The staff handed out various items during the pilot semester which were

related to the lessons, (e.g., thermometers, pens, supermarket calculators), but found that these gratuities, though welcomed, did not have a discernible effect on students' attitudes towards the project, as evidenced when this practice was discontinued.

CONCLUSIONS

Probably the most important factor in motivating adults is the sincerity and sensitivity of those who represent the ABE program: administrators, teachers, and tutors.

It is erroneous to assume that undereducated adults are unintelligent. The educator should avoid making unwarranted assumptions concerning the ABE student's abilities. When adults realize that they are being treated with condescension or lack of sincerity, they may reject the educator. The mistake is to assume that most adults are not motivated to learn, when in fact they may not be motivated to deal with what they perceive to be negative institutional attitudes.

A group of students at the graduation dinner with their TV teacher and tutor.

Chapter Four: Evaluation Of The Experiment[1]

The evaluation effort for the Salem Project has consisted of a preliminary Pilot Test conducted from September to December, 1974 and a more rigorous Field Test, conducted from January to May, 1975.

The purpose of the evaluation has been to assess Project effectiveness as an alternative delivery system for adult basic education. To accomplish this the JSSA Evaluation Team developed criterion-referenced, pre- and post-tests and three record keeping forms to obtain student and aide feedback about the Project.

With the data obtained from these tests and forms the evaluators have attempted to determine the following:

1. the extent of learning which took place,
2. the significance of achievement on tests,
3. the causal relationships among weeks tutored, hours tutored, lessons watched and achievement,
4. the influence of individual aides on achievement,
5. the effectiveness of the math and reading instructional tapes and
6. the feasibility of program replication.

The original role of the evaluation was to provide a summative report on Project outcomes. However, in December, 1974 representatives from the U.S. Office of Education and the New Jersey Department of Adult Education indicated that the guidance of a formative evaluator during the spring Field Test would ensure validity of the study. Consequently, the evaluators were involved with the Field Test design, supervised the data collection and testing procedures and analyzed all results for this report.

THE PILOT TEST

Of the 73 adults who registered for the Pilot Test, 25 never started, 20 dropped out for various reasons and 28 completed the program. The average age of students enrolled in the Pilot Test was 41.5 years; that group was nearly six years older than enrollees in the January Field Test.

Only 50% of the group who completed the program took both the pre- and post-tests in reading. The average change in reading level was -0.2 levels, which meant that learning probably had not taken place during the Pilot Test.

Seventeen of the 28 students took both the pre- and post-tests in math. Gains in math scores were on the whole more positive than reading gains, but statistical analysis were not conducted on the largely inaccurate data.

RESULTS

Although some results were salvageable from the Pilot Test study, they were necessarily inconclusive due to inadequate data collection and record keeping and to specific problems which were discussed in more detail in Interim Report #2, submitted in January, 1975. The staff did not have sufficient personnel or time at that point to produce tapes and simultaneously supervise the aides.

Valid conclusions could not be drawn with the objective results of the Pilot Test. However, affective feedback from students had been positive and the Salem Project had established a reputation in the community as a service-oriented and worthwhile organization.

1. Excerpts from Clark Terry A., *The Salem Cable Television Project For Adult Learners*, J. S. Shaffer, Jr. Associates, Wayne, Pa., 1975. For more information, contact the U.S. Office of Education (Adult Education), Washington, D.C.

THE FIELD TEST

The Field Test was designed to study Project effectiveness with more accuracy than was possible in the Pilot Test. It was conducted over a 20 week period, from January 13 to May 30, 1975.

ENROLLMENT

Forty-four students registered for the Field Test; original enrollment will be recorded as 37, however, because seven of the enrollees never started.

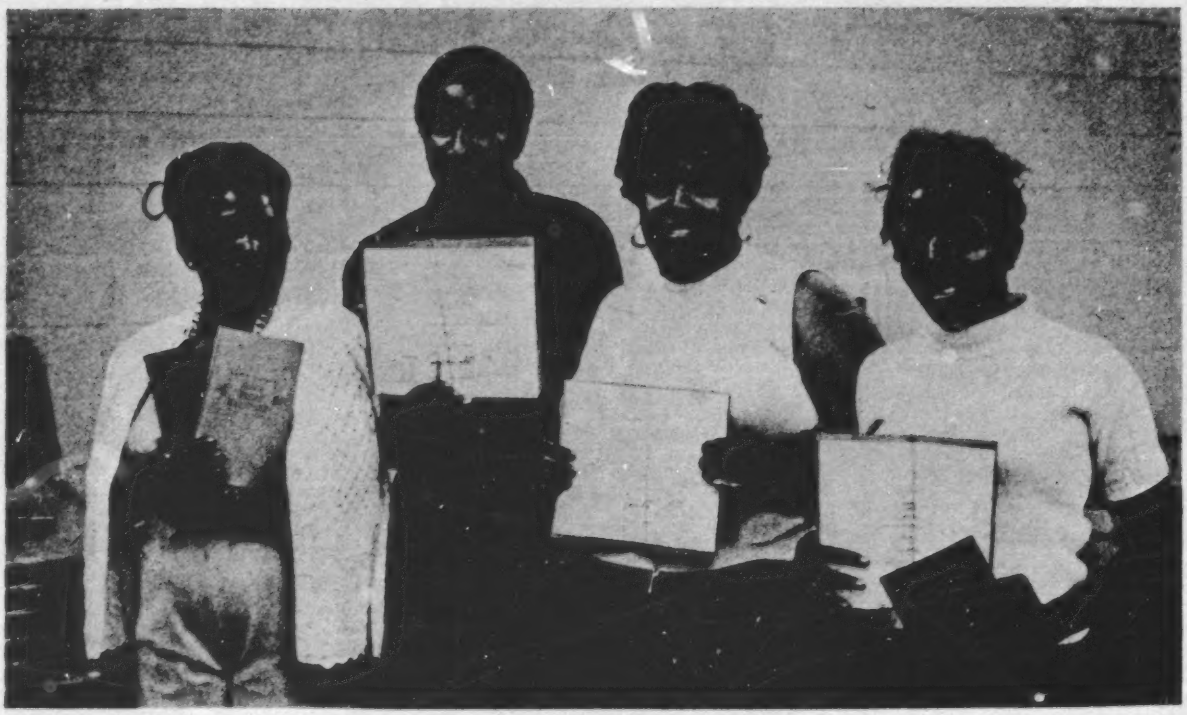
During March the reading and math teachers decided that five students who had scored exceptionally well on the pre-tests were ready for GED classes. These five left the SALEM Project and enrolled in a GED program in the school district. Three other students moved away in February. These eight will be identified as transfers for the purposes of this study. Three other students dropped out of the program, all claiming they were too busy to watch the tapes and do the work.

. . . We have computed a dropout rate of 10% for students in the Field Test. This is considerably lower than the 32% dropout rate experienced during the Pilot Test.

RESULTS

All students were in the program for 20 weeks, except for two students who were in for sixteen weeks. Students were tutored an average of 13.75 weeks in reading and 13.8 weeks in math. This means that students were tutored over 70% of the program duration.

It was possible for students to watch 20 lessons (40 tapes) in reading and 20 lessons (20 tapes) in math. The average number of lessons viewed in reading was 7.0, and in math, 7.2; only 35% of the reading tapes and 36% of the math tapes were viewed. According to records kept by the reading teacher, the cable modulator was operating poorly for the first five weeks of the Field Test. This resulted in poor reception and students were unable or unwilling to view instructional programs during that period.



Students showing certificates awarded at the end of the Field Test.

TABLE

Pre- and Post-test Raw Scores and Change in Scores for Reading and Math

STUDENT #	READING SCORES PRE	POST	CHANGE	MATH SCORES PRE	POST	CHANGE
1	0	15	+15	4	24	+20
2	13	14	+ 1	6	10	+ 4
3	14	16	+ 2	9	8	— 1
4	19	20	+ 1	18	18	0
5	12	20	+ 8	9	9	0
6	16	22	+ 6	2	20	+18
7	8	12	+ 4	19	20	+ 1
8	21	22	+ 1	19	22	+ 3
9	12	12	0	2	6	+ 4
10	17	13	— 4	22	23	+ 1
11	12	17	+ 5	8	7	— 1
12	2	19	+17	19	11	— 8
13	9	17	+ 8	16	18	+ 2
14	3	18	+15	7	21	+14
15	5	18	+13	6	12	+ 6
16	16	15	— 1	20	22	+ 2
17	18	18	0	21	22	+ 1
18	18	22	+ 4	14	17	+ 3
19	14	20	+ 6	3	15	+12
20	11	19	+11	8	18	+10
21	3	14	+ 8	19	21	+ 2
22	—	—	—	20	23	+ 3
23	—	—	—	17	21	+ 4
24	—	—	—	1	8	+ 7
25	—	—	—	3	4	+ 1
26	—	—	—	11	15	+ 4
	Perfect Score = 23			Perfect Score = 24		
	Mean Gain = 5.7 pts.			Mean Gain = 4.3 pts.		

Cable reception was good, however, during the final 15 weeks of the program. Two of these weeks were set aside for call-ins requesting replays of certain lessons; the outcome of that endeavor was unsatisfactory because so few students called in. If only those weeks of regular, uninterrupted cablecasting are counted, students watched over half of the lessons.

Although students were to have been tutored an hour per week in each subject, the average number of hours tutored was 10.22 in reading and 10.75 in math. This situation may be attributed more to students than to aides; students apparently refused tutoring several times due to work schedules, family problems and business. Aides collected homework even if they were unable to tutor that week.

ACHIEVEMENT

Achievement was measured through a comparison of pre- and post-test scores on reading and math tests. These raw scores for January and May are recorded in the following table, with the computed differences between them.

Average gains in reading and math were 5.7 points and 4.3 points, respectively. This represents an increase of 25% and 18% respectively in correct answers on the tests. The gains were significant at the .01 level for both subjects; in only one of 100 cases could the achieved gain have occurred by chance over the four and one-half month test period. There is some suspicion on the part of Project staff that in extreme cases of improvement the aide helped the student complete the test.

GRADE LEVELS

Students attained higher grade levels on post-tests in reading and math. Figures 1 and 2 are illustrations of the number of students on each grade level before and after treatment.

Nine students were on the first and second levels before treatment and none were on the fifth level in reading. There are now four students on the fifth level and none on the first and second. (Grade levels correspond to Skillbooks in the Laubach reading series.)

Of the 19 students on levels one, two and three before treatment in math, only 10 remain in those levels after treatment. Most math students are now on the fourth and fifth grade levels.

EVALUATOR'S RECOMMENDATIONS

Based on the content of the foregoing discussion and results of the Field Test, we submit the following recommendations for replication of a study in cable delivery of adult basic education:

1. If lessons are to be written, developed and produced during the project period, at least two years should be allotted for this process before cablecasting commences on a regular basis. Some cablecasting should be done for the purpose of evaluative feedback only. A primary failure of the Salem Project was the inability to validate the instructional tapes as effective teaching instruments.

   If the reading and math tapes are tested elsewhere, they should be reviewed and revised over at least a six-month period before the testing is started.

2. The staff coordinated for such a replication study should be adequate for the needs of the study. They should be differentially competent in curriculum development for adult learners and in TV production.

   Such a staff would include the following: a) an administrative coordinator, who would supervise all details of project operation, including such tasks as reviewing lessons, monitoring aides and part-time crew members and seeing that lessons are cablecast on schedule; b) a communications expert, experienced in production, control room monitoring and other technical aspects of creating quality tapes; c) an adult education curriculum specialist, and a math and a reading teacher, who would work as a team to write and produce instructional tapes; d) one full-time paraprofessional aide per 20 enrolled students and e) a three person production crew, including the communications expert.

   Staff roles and tasks should be defined and clarified at the outset of the project to ensure proper task allocation and performance.

3. If the study is to be conducted in a school district and funded with other than school district monies, the goals of the project should be clarified and agreed upon by all concerned parties.

4. Four treatment groups should be established to determine which component of the project most influences achievement. This was impossible to do for the Salem Project because of the small number of students participating.

   One of the groups would be treated similarly to the group in the Salem study, who watch lessons and are tutored on a weekly basis. The second group would watch lessons but receive no tutoring help. A third group would not watch lessons but would be tutored on a weekly basis and given homework assignments. A control group would do nothing but take pre- and post-tests, so that normal maturation learning may be isolated.

5. Two alternative variables should be introduced to the study: a) Half of the aides should be instructed to tutor on a weekly basis in students' homes after students have watched each lesson. Half should arrange small group viewing/tutoring sessions in the local library, high school or centrally located home. b) Some aides might be hired who are not from the neighborhood in which students reside. Results could show how students respond to known versus unknown aides.

6. Any replication should be carefully directed so that accurate, valid data are collected on a consistent basis. This is the only means by which instructional materials and approach may be validated and proven effective.

Chapter Five:

Planning For Replication

The SALEM concept can be replicated; however, careful planning is essential for such an undertaking.[1]

The educator wishing to replicate SALEM will find that there is a lack of professional quality TV programming for adults with an elementary school education.[2] The SALEM tapes are not suitable for distribution. They were produced on small half-inch non-professional format, and hence are of poor technical quality. Furthermore, the tapes need further development and revisions.

The SALEM math tapes are in the public domain; however, the reading tapes, based on the Laubach method, cannot be distributed without the consent of New Readers Press. The Salem City Schools were refused permission by the publisher to continue field testing the reading tapes without establishing quality controls through its Publishing Committee, requiring the involvement of a Laubach-approved consultant. Although the later programs of the reading series received a positive evaluation, the earlier tapes need to be revised. Questions concerning the methodology of adapting the Laubach method to television need to be resolved with New Readers Press before further development can take place.

COSTS

Replication of SALEM is possible once adequate video programming is available. In that case, it is feasible to expand an ABE program through cable television at a much lower cost than the $160,000 allotted for SALEM to build a studio and produce video tapes.

Costs can be reduced significantly if volunteers are used as tutors. In some cases, a part-time coordinator could manage a cable project effectively, provided that this person's responsibilities do not include evaluation.

In calculating costs, one should consider the salaries of the coordinator, tutors, and possibly a technician who would cablecast the tapes. Also included would be the duplication of video tapes and possibly a playback machine, if not provided by the cable operator. There may also be the costs for using cable, cable subscriptions, and public viewing sites requiring cable installations and TV receivers. Publicity materials, texts, and operating expenses should also be considered.

Whereas the SALEM Project was a successful example of using cable to extend the ABE program of a small rural city, there are problems, not encountered in Salem, which could slow replication elsewhere. For example, the effort to use cable in Philadelphia met serious difficulties. Unlike in Salem, very few of the subscribers in South Philadelphia were undereducated. Greater problems were encountered in working with local agencies and community groups than in Salem. Also, the mass media, which is plentiful and citywide, could not be directed toward a small target group in a particular section of the city. It was found that the use of public viewing sites greatly constrained the otherwise flexible one-to-one tutoring program, coordinated by the Philadelphia ABE Academy. Hence, ideal replication sites may be found in communities which are small compared to Philadelphia, and which have a proportionately large cable subscribership, including members of the target group.

1. See Chapter Four, "Evaluator's Recommendations."
2. See Chapter One, "Previous Experimentation with Television in Literacy Training in the U.S."

PLANNING MODEL FOR DELIVERING TELEVISED ABE INSTRUCTION VIA CABLE TELEVISION

I. NEEDS ASSESSMENT SURVEY (COMMUNITY, REGIONAL, NATIONAL)

A. General area survey.

1. Analysis of U.S. census data — (age, sex, income, educational level).

2. Analysis of information obtained from U.S. Department of Labor, State employment services, re: unemployment levels, requirements and opportunities for employment.

3. Analysis of information obtained from state and local social welfare, health, housing, and educational organizations, re: social problems and needs.

4. Identification of existing educational facilities for target population.

B. Identification of target population and their needs.

1. Analysis of local cable company's subscriber list to determine number of target population who have cable.

2. Survey of target population to determine:

a. Interest in ABE programming.

b. Educational levels and needs.

c. Access to existing cable systems or desire for access.

d. Media viewing habits.

e. Need for ancillary services.

3. Identification of groups that represent and/or work with target population.

a. Identification of community leaders.

b. Identification of key reference groups.

c. Identification of potential tutors.

C. Location and identification of cable systems.

1. Exploration of possibility of cable connection to target population.

a. Exploration of cable subscription costs.

b. Identification of alternatives to individual subscription, (e.g., community centers).

2. Appraisal of cable system's technical capabilities, (e.g., strength of signal).

3. Investigation of channel availability for ABE program cablecasting

D. Identification of alternative or supplementary delivery systems to cable delivery system.

1. Closed-circuit television.

2. Broadcast television.

3. Radio.

4. Newspapers.

E. Review of local, state, and Federal cable policy

F. Cost-effectiveness study.

II. ESTABLISHMENT OF AN ON-GOING SUPPORT SYSTEM

A. Formation of a Community Advisory Committee.

B. Development of motivational devices.

C. Development and implementation of recruitment strategies.

1. Use of reference groups and media for publicity.

D. Development of incentives for continuing learner participation.

E. Development of individual and group tutoring situations.

F. Development of group viewing situations.

G. Development of a feedback system (Community Information Center).

1. Two-way communications (live "call-in").

2. Homework packets.

3. Analysis of tutor feedback.

H. Development of a referral system on a "call-in" basis.

1. Jobs, information, other agencies.

I. Development of staff hiring policies and training procedures.

III. CURRICULUM DEVELOPMENT

A. Development of ABE curriculum for television.

1. Investigation of current broadcast by ABE television programming.

2. Investigation of ABE programming in film, videotape ,and radio media.

3. Investigation of published and otherwise available ABE curricula.
   a. Identification of desirable ABE "terminal objectives."

4. Concultation with ABE "experts," re: curriculum development.

5. Test pilots.

   a. Experimentation with different program approaches and formats.

      1) Reaction surveys of Community and Curriculum Advisory Committee members, samples of target population.

      2) Development of feasible schedule of programming and supplementary materials distribution and evaluation following learner completion.

      3) Development of plan for incorporating feedback into programming.

      4) Development of attitudinal surveys during and following series of programs.

      5) Pre- and post-tests to determine retention of televised information.

      6) Viewing ratings.

IV. EQUIPPING THE TV STUDIO FACILITY

A. Investigation of the state of current television technology in light of possible budgetary constraints.

B. Development of television system appropriate for budget, proposed curriculum, and "canned" materials available.

C. Design of television studio facility appropriate for budget, television system, sites available, and curriculum developed.

V. IDENTIFICATION OF PROJECT COST PARAMETERS

VI. Development of Experimental Designs for Implementation of the Model (e.g., experimental groups).

Chapter Six: Summary And Conclusions

As measured by its original objectives, the SALEM experiment was a success. Students did learn as the result of the TV lessons and tutoring. The local ABE enrollment increased significantly as a result of the experiment.

The SALEM project demonstrated that televised instruction is effective with a support system, including tutors, workbooks, and provisions for viewer participation and feedback. The tutor is definitely the key element of success in home-based instruction.

As a research project, however, SALEM had shortcomings. The workscope was too ambitious, given budgetary and time constraints; within 18 months, it called for the creation of an ABE curriculum, the designing and building of a TV studio, the production of three different TV series, and the organization of an innovative ABE program. This did not leave the staff enough time to perform research into the pedagogical problems of producing and utilizing TV programs.

Hence, additional research is needed to shed light on the following problems which are still largely unresolved. Should television be used as a primary teaching tool, or should it be used to "motivate" students and function to supplement direct teaching and tutoring? Is television to be used to teach basic reading and math, or should it focus on the application of these skills in areas such as consumer education? Exactly how should the television programs be used by the students and tutors? Should efforts be made to develop television programming for illiterates, or should the emphasis be to reach adults with at least a fifth grade education?

Once these research questions are resolved, full scale television production efforts could be undertaken. The SALEM math and reading tapes would serve as "pilots" for such efforts, inasmuch as they need further revision and development before undergoing wider field tests.

There is enough evidence, based on worldwide efforts, to indicate that televised instruction can work in ABE, provided that adequate programming is coupled with an effective support system. However, work still needs to be done in the development and utilization of TV programming in Adult Basic Education.

The tutor was the key person in the SALEM Project.

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